Attorney Docket No.: 727-002c

# IN THE UNTIED STATES PATENT AND TRADEMARK OFFICE

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In re application of

Serizawa

Examiner: Armando, Rodriguez

Serial No: 09/769,915

Art unit: 2828

Filed:

January 25, 2001

For:

CONTROL METHOD AND APPARATUS FOR STABILIZING

OPTICAL WAVELENGTH

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## **RESPONSE TO OFFICE ACTION**

## Box No Fee

Honorable Assistant Commissioner of Patents Washington, DC 20231

Dear Sirs:

# SPECIFICATION REPLACEMENT PAGES

Applicant hereby amendments the specification as followed. The marked up copy indicates the changes to the specification to accompany the amendment filed herewith in response to the Office Action dated December 18, 2002. The clean copy illustrates the specification without markings.

# CONTROL METHOD AND APPARATUS FOR STABILIZING OPTICAL WAVELENGTH BACKGROUND OF THE INVENTION

# Cross-Reference to Related Applications

The present application is based on, and claims the benefit of priority from, Applicant's co-pending US Patent Application Serial No. 09/176,579, filed on October 21, [1997] 1998, now issued as U.S. Patent No. 6,212,210, which in turn claims the benefit of priority from Japanese Patent Appl. No. 9-292228 filed on October 24, 1997, both of which are incorporated by reference herein as fully as if set forth in their entitety.

#### 1. Field of the Invention

This invention relates to a control apparatus and method for stabilizing optical wavelength, and in particular a control apparatus and method for stabilizing optical wavelength which is suitable for use under any external conditions.

# Description of the Related Art

In recent years, with the development of multimedia communications services, optical transmission systems which form the backbone of communications systems are moving to higher speeds and higher capacities, and optical wavelength division multiplexing is expected to make this high performance possible.

In this optical wavelength division multiplexing, several channels are transmitted on a common transmission path by assigning plural optical signals having different wavelengths as carriers to plural signals which are to be transmitted. Therefore, to avoid inter-channel interference in optical wavelength division multiplexing, interference between optical signals on adjacent wavelengths must be avoided, and optical wavelengths must consequently be stabilized with

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